Application No. 10/677,694
Docket No. IB-8 (A4-1770)
Amendment dated July 19, 2006
Reply to Office Action of April 20, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently amended): A system for monitoring one or more physiological parameters for diagnosis of congestive heart failure within a patient, said system comprising:

at least one sensing device adapted to be implanted in a cavity of the patient's cardiovascular system, said sensing device comprising an anchoring mechanism, at least one inductor coil and at least one sensor, with optional electronic components, said at least one sensing device being implantable ~~implanted~~ so that a portion of said anchoring mechanism passes through a septum of the heart and, to minimize the risk of thrombogenicity, a larger portion of said implantable sensing device is located in the right side of the heart and a smaller portion of said implantable sensing device is located in the left side of the heart and includes the at least one sensor;

a non-implantable readout device that is not adapted to be implanted in the patient, said readout device comprising at least one inductor coil having telemetric means for at least one of electromagnetic telecommunication and electromagnetic wireless powering of said sensing device through said at least one inductor coil of said sensing device;

wherein the sensing device sends data directly to a drug delivery device to tailor drug treatment of the patient.

Claim 2 (Currently amended): A system for monitoring one or more physiological parameters for treatment of congestive heart failure within a patient, said system comprising:

at least one sensing device adapted to be implanted in a cavity of the patient's cardiovascular system, said sensing device comprising at least one inductor coil and at least one sensor, with optional electronic components;

a non-implantable readout device that is not adapted to be implanted in the patient, said readout device comprising at least one inductor coil allowing electromagnetic telecommunication and electromagnetic wireless powering of

said sensing device through said at least one inductor coil of said sensing device;

wherein said system is part of a closed-loop pacing/ICD (implantable cardioverter defibrillator) tuning mechanism, data from said at least one sensing device is sent to a patient pacemaker for tailoring of pacing/ICD function, and said at least one sensing device communicates in accordance with the group consisting of:

said at least one sensing device is directly interrogated by the pacing/ICD unit;

said at least one sensing device is interrogated by the pacing/ICD unit, the system further comprising an external unit solely for transmitting power to said at least one sensing device; and

said at least one sensing device transmits data to an external reader, after which said reader retransmits data to the pacing/ICD unit.

Claim 3 (Previously presented): The system of claim 1 wherein said at least one sensor of the implantable sensing device comprises at least one

capacitive sensor.

Claim 4 (Previously presented): The system of claim 2 wherein said at least one sensor of the implantable sensing device comprises at least one capacitive sensor.

Claim 5 (Original): The system of claim 1 wherein the implantable sensing device includes a battery.

Claim 6 (Original): The system of claim 5 wherein the battery is rechargeable using wireless means.

Claim 7 (Original): The system of claim 2 wherein the implantable sensing device includes a battery.

Claim 8 (Original): The system of claim 7 wherein the battery is rechargeable using wireless means.

Claim 9 (Previously presented): The system of claim 1 wherein the one or more physiological parameters include pressure.

Claim 10 (Previously presented): The system of claim 2 wherein the one or more physiological parameters include pressure.

Claim 11 (Currently amended): The system of claim 9 wherein the at least one sensing device is adapted to be implanted so as to measure at least one of the following pressures: left ventricular end diastolic pressure, left atrium, left atrium appendage, mean left atrium pressure, left side of the heart, right side of the heart, right atrium, mean right atrium pressure, right ventricular end diastolic pressure, differential pressure between left and right atrium.

Claim 12 (Original): The system of claim 11 wherein said system calculates the change of pressure over time (dp/dt).

Claim 13 (Currently amended): The system of claim 10 wherein the at least one sensing device is adapted to be implanted so as to measure at least one of the following pressures: left ventricular end diastolic pressure, left atrium, left atrium appendage, mean left atrium pressure, left side of the heart, right side of the heart, right atrium, mean right atrium pressure, right ventricular end diastolic pressure, differential pressure between left and right atrium.

Claim 14 (Original): The system of claim 13 wherein said system calculates the change of pressure over time (dp/dt).

Claim 15 (Previously presented): The system of claim 1 wherein the sensing device sends data directly to a drug delivery device to tailor drug treatment of the patient.

Claim 16 (Previously presented): The system of claim 2 wherein the sensing device sends data directly to a drug delivery device to tailor drug treatment of the patient.

Claim 17 (Previously presented): The system of claim 1 wherein a resonant scheme is used to couple the sensing device to the readout device.

Claim 18 (Previously presented): The system of claim 2 wherein a resonant scheme is used to couple the sensing device to the readout device.

Claim 19 (Previously presented): The system of claim 1 wherein a passive scheme is used to couple the sensing device to the readout device.

Claim 20 (Previously presented): The system of claim 2 wherein a passive scheme is used to couple the sensing device to the readout device.

Claim 21 (Previously presented): The system of claim 1 wherein an active scheme is used to couple the sensing device to the readout device.

Claim 22 (Previously presented): The system of claim 2 wherein an active scheme is used to couple the sensing device to the readout device.